[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [66 FR 10957 2/21/2001]

[Docket No. 2000-NM-47-AD; Amendment 39-12118; AD 2001-03-14]

RIN 2120-AA64

Airworthiness Directives; Airbus Model A300 B4 Series Airplanes, and Model A300 B4-600, A300 B4-600R, and A300 F4-600R (Collectively Called A300-600) Series Airplanes

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to certain Airbus Model A300 series airplanes and all Airbus Model A300-600 series airplanes, that requires a one-time high frequency eddy current inspection to detect cracking of the splice fitting at fuselage frame (FR) 47 between stringers 24 and 25; and corrective actions, if necessary. This amendment is prompted by issuance of mandatory continuing airworthiness information by a foreign civil airworthiness authority. The actions specified by this AD are intended to detect and correct cracking of the splice fitting at fuselage FR 47, which could result in reduced structural integrity of the airplane.

DATES: Effective March 28, 2001.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 28, 2001.

ADDRESSES: The service information referenced in this AD may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. This information may be examined at the Federal Aviation Administration (FAA), Transport Airplane Directorate, Rules Docket, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

FOR FURTHER INFORMATION CONTACT: Norman B. Martenson, Manager, International Branch, ANM-116, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to certain Airbus Model A300 series airplanes and all Airbus Model A300-600 series airplanes was published in the **Federal Register** on April 5, 2000 (65 FR 17822). That action proposed to require a one-time high frequency eddy current (HFEC) inspection to detect cracking of the splice fitting at fuselage frame (FR) 47 between stringers 24 and 25, and corrective actions, if necessary.

Comments Received

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the comments received.

Airplane Model Designation and Change in AD Applicability

Since the issuance of the proposed AD, the FAA has determined that it is necessary to revise the manner in which it specifies the model designation for Airbus Model A300 and A300-600 series airplanes to reflect the designations that appear on the type certificate data sheet (TCDS). This final rule has been revised accordingly.

Additionally, an incorrect reference to Model A300 F4-200 series airplanes has been removed from paragraph (a)(2) of this final rule since that airplane model has not been type certificated in the United States.

Further, since the issuance of the proposed AD, the FAA also has determined that the applicability was stated incorrectly in the proposal. Airbus Model A300 B2K-3C airplanes were inadvertently included in the applicability of the proposed AD. Reference to that model has been removed from the applicability of this final rule.

In addition, the applicability of the proposed AD indicates that "All Model A300-600 series airplanes" and that "Model … A300 B4-600, A300 B4-600R, and A300 F4-600R series airplanes on which Airbus Modification 5890 (Airbus Service Bulletin A300-53-0199) has been installed" are among the affected airplanes. However, Model A300 B4-600, A300 B4-600R, and A300 F4-600R series airplanes, which are commonly referred to as "Model A300-600 series airplanes," were mistakenly associated in the applicability of the proposed AD with Model A300 series airplanes on which Modification 5890 has been incorporated. The parallel French airworthiness directive 1999-515-298(B), dated December 29, 1999, indicates that all Model A300-600 series airplanes are affected. The FAA intended to mirror the applicability of the French airworthiness directive in the applicability of the proposed AD. Therefore, the applicability of this final rule has been revised to reflect the affected models as shown in the French airworthiness directive.

Request to Allow Flight with Cracks

One commenter, Airbus, requests that the proposed AD be revised to provide a 100-flight-cycle grace period for splice replacement under certain conditions. That is, this grace period would allow flight with cracks in the area from hole A to the edge, provided that inspection of the area between holes A and J reveals no cracks. Airbus states that flight with such cracks was allowed by the Direction Générale de l'Aviation Civile (DGAC), which is the airworthiness authority for France, in its parallel French airworthiness directive for the following reasons. The commenter notes that its statements are justified in two technical notes and in a laboratory report.

There are three stages of crack propagation of the splice that occur in the following sequence:

- From hole A to the edge;
- Between hole A and hole J (hole B in the laboratory report);
- From hole J to failure of the splice (the duration of this phase is 1,600 flight cycles).

The first inspection specified in the All Operators Telex (AOT) is accomplished to detect cracks from hole A to the edge. If a crack is found, then an inspection is performed between holes A and J. If no crack is found between holes A and J, then a grace period of 100 flight cycles is given for splice replacement. Since the measured crack propagation from hole J to splice failure is 1,600 flight cycles (as measured on the airplane having manufacturer's serial number 255), it is conservative to allow 100 flight cycles as a grace period for splice replacement. In addition, the structure can still sustain ultimate loads with the splice failed and limit loads with the splice plus frame failed. The 100-flight-cycle grace period is provided to allow operators to get a spare splice and plan the work.

The FAA concurs with the commenter's request to provide a 100-flight-cycle grace period for splice replacement under certain conditions, as specified in the referenced AOT's. While it is not the FAA's normal policy to allow flight with known cracks, in light of the technical data submitted by the manufacturer in this case, the FAA has determined that further flight with cracking in the situation described by the commenter can be permitted for the recommended 100-flight-cycle grace period. The FAA recognizes the unusual need that exists due to the work that is required to replace a splice fitting.

Further, the FAA finds that the cracks observed are sufficiently far from other known crack sites so that existing inspection programs can be considered valid independently from one another. In consideration of these findings and based on the FAA's criteria for flight with known cracking, the FAA has determined that further flight with cracking is permissible for a grace period of 100 flight cycles in this specific case.

It should be noted that Airbus specified the 100-flight-cycle grace period in the AOT's that are cited in this final rule. Now that the FAA is allowing that same grace period, this final rule has been revised to more closely parallel the actions and compliance times specified in the AOT's with one exception. (That exception involves contacting the FAA, rather than the manufacturer, for disposition of certain findings, which was explained in the preamble of the proposed AD.) Therefore, the FAA has revised the formatting of this final rule to coincide with the actions and compliance times specified in the AOT's.

Conclusion

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Interim Action

This is considered to be interim action until final action is identified, at which time the FAA may consider further rulemaking.

Cost Impact

The FAA estimates that 83 airplanes of U.S. registry will be affected by this AD, that it will take approximately 1 work hour per airplane to accomplish the required one-time HFEC inspection, and that the average labor rate is $60 per work hour. Based on these figures, the cost impact of the AD on U.S. operators is estimated to be $4,980, or $60 per airplane.

The cost impact figure discussed above is based on assumptions that no operator has yet accomplished any of the requirements of this AD action, and that no operator would accomplish those actions in the future if this AD were not adopted.

Regulatory Impact

The regulations adopted herein will not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, it is determined that this final rule does not have federalism implications under Executive Order 13132.

For the reasons discussed above, I certify that this action (1) is not a "significant regulatory action" under Executive Order 12866; (2) is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act. A final evaluation has been prepared for this action and it is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. Section 39.13 is amended by adding the following new airworthiness directive:

AIRWORTHINESS DIRECTIVE

Aircraft Certification Service
Washington, DC

U.S. Department
of Transportation
**Federal Aviation
Administration**

We post ADs on the internet at "av-info.faa.gov"

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

2001-03-14 AIRBUS INDUSTRIE: Amendment 39-12118. Docket 2000-NM-47-AD.

Applicability: All Model A300 B4-600, B4-600R, and F4-600R (Collectively Called A300-600) series airplanes; and Model A300 B4 series airplanes on which Airbus Modification 5890 (Airbus Service Bulletin A300-53-0199) has been installed; certificated in any category.

NOTE 1: This AD applies to each airplane identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For airplanes that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (c) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To detect and correct cracking of the splice fitting at fuselage frame (FR) 47, which could result in reduced structural integrity of the airplane, accomplish the following:

Inspection and Corrective Actions

(a) Perform a high frequency eddy current (HFEC) inspection to detect cracking of the splice fitting at fuselage FR 47 between stringers 24 and 25 (left-and right-hand sides), in accordance with Airbus All Operators Telex (AOT) A300-53A0350 (for Model A300 series airplanes) or A300-600-53A6123 (for Model A300-600 series airplanes), both dated October 25, 1999; as applicable. Do the inspection at the applicable time specified in paragraph (a)(1), (a)(2), (a)(3), or (a)(4) of this AD. Perform applicable corrective actions (e.g., removing the nut at hole "A" and performing an inspection using a shielded probe; replacing the splice fitting with a new splice fitting; performing an inspection around fastener holes "A" to "N" on the face of FR 47 adjacent to the splice fitting), in accordance with and at the times specified in the applicable AOT.

Compliance Times for Inspection of Model A300 Series Airplanes

(1) For Model A300 B4-100 series airplanes: Perform the HFEC inspection at the applicable time specified in paragraph (a)(1)(i) or (a)(1)(ii) of this AD.

(i) For airplanes that, as of the effective date of this AD, have accumulated fewer than 20,000 flight cycles since installation of Airbus Modification 5890 (Airbus Service Bulletin A300-53-0199): Perform the HFEC inspection at the later of the times specified in paragraphs (a)(1)(i)(A) and (a)(1)(i)(B) of this AD.

(A) Within 10,900 flight cycles or 22,000 flight hours since installation of Airbus Modification 5890, whichever occurs earlier.

(B) Within 1,500 flight cycles after the effective of this AD.

(ii) For airplanes that, as of the effective date of this AD, have accumulated 20,000 or more flight cycles since installation of Airbus Modification 5890: Perform the HFEC inspection within 750 flight cycles after the effective date of this AD.

(2) For Model A300B4-200 series airplanes: Perform the HFEC inspection at the applicable time specified in paragraph (a)(2)(i) or (a)(2)(ii) of this AD.

(i) For airplanes that, as of the effective date of this AD, have accumulated fewer than 20,000 flight cycles since installation of Airbus Modification 5890 (Airbus Service Bulletin A300-53-0199): Perform the HFEC inspection at the later of the times specified in paragraphs (a)(2)(i)(A) and (a)(2)(i)(B) of this AD.

(A) Within 8,950 flight cycles or 18,600 flight hours since installation of Airbus Modification 5890, whichever occurs earlier.

(B) Within 1,500 flight cycles after the effective of this AD.

(ii) For airplanes that, as of the effective date of this AD, have accumulated 20,000 or more flight cycles since installation of Airbus Modification 5890 (Airbus Service Bulletin A300-53-0199): Perform the HFEC inspection within 750 flight cycles after the effective date of this AD.

Compliance Times for Inspection of Model A300-600 Series Airplanes

(3) For Model A300-600 series airplanes on which Airbus Modification 5890 is not installed: Perform the HFEC inspection at the applicable time specified in paragraph (a)(3)(i) or (a)(3)(ii) of this AD.

(i) For airplanes that have accumulated fewer than 10,000 total flight cycles as of the effective date of this AD: Perform the HFEC inspection at the later of the times specified in paragraphs (a)(3)(i)(A) and (a)(3)(i)(B) of this AD.

(A) Prior to the accumulation of 2,500 total flight cycles or 6,400 total flight hours, whichever occurs earlier.

(B) Within 1,500 flight cycles after the effective of this AD.

(ii) For airplanes that have accumulated 10,000 or more total flight cycles as of the effective date of this AD: Perform the HFEC inspection within 500 flight cycles after the effective date of this AD.

(4) For Model A300-600 series airplanes on which Airbus Modification 5890 is installed: Perform the HFEC inspection at the applicable time specified in paragraph (a)(4)(i) or (a)(4)(ii) of this AD.

(i) For airplanes that have accumulated fewer than 10,000 total flight cycles as of the effective date of this AD: Perform the one-time HFEC inspection at the later of the times specified in paragraph (a)(4)(i)(A) and (a)(4)(i)(B) of this AD.

(A) Prior to the accumulation of 6,500 total flight cycles or 16,700 total flight hours, whichever occurs earlier.

(B) Within 1,500 flight cycles after the effective of this AD.

(ii) For airplanes that have accumulated 10,000 or more total flight cycles as of the effective date of this AD: Perform the HFEC inspection within 500 flight cycles after the effective date of this AD.

Disposition of Certain Crack Findings

(b) Where Airbus AOT A300-53A0350 (for Model A300 series airplanes) or A300-600-53A6123 (for Model A300-600 series airplanes), both dated October 25, 1999, specifies to contact Airbus in case of certain crack findings, this AD requires that a repair be accomplished in accordance with a method approved by either the Manager, International Branch, ANM-116, FAA, Transport Airplane Directorate; or the Direction Générale de l'Aviation Civile (DGAC) (or its delegated agent). For a repair method to be approved by the Manager, International Branch,

ANM-116, as required by this paragraph, the Manager's approval letter must specifically reference this AD.

Alternative Methods of Compliance

(c) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, International Branch, ANM-116. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, International Branch ANM-116.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the International Branch, ANM-116.

Special Flight Permits

(d) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the requirements of this AD can be accomplished.

Incorporation by Reference

(e) Except as required by paragraph (b) of this AD, the actions shall be done in accordance with Airbus All Operators Telex A300-53A0350, dated October 25, 1999; or Airbus All Operators Telex A300-600-53A6123, dated October 25, 1999; as applicable. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Airbus Industrie, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France. Copies may be inspected at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

NOTE 3: The subject of this AD is addressed in French airworthiness directive 1999-515-298(B), dated December 29, 1999.

Effective Date

(f) This amendment becomes effective on March 28, 2001.

FOR FURTHER INFORMATION CONTACT: Norman B. Martenson, Manager, International Branch, ANM-116, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington 98055-4056; telephone (425) 227-2110; fax (425) 227-1149.

Issued in Renton, Washington, on February 9, 2001.
Vi L. Lipski, Manager, Transport Airplane Directorate, Aircraft Certification Service.